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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
.09/938,196	08/23/2001	Warren P. Porter	Warf-002	1156
22224	7590	09/13/2005	EXAMINER	
PATRICIA SMITH KING SUITE 22 222 NORTH MIDVALE BOULEVARD MADISON, WI 537055072			THOMSON, WILLIAM D	
			ART UNIT	PAPER NUMBER
			2123	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,196

Applicant(s)

PORTER ET AL.

Examiner

William D. Thomson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-93 and 97-100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 94-96 is/are allowed.
- 6) ☒ Claim(s) 1-93 and 97-100 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/23/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. Claims 1-100 have been presented for examination.
2. Claims 1-93 and 97-100 have been rejected.
3. Claims 94, 95 and 96 have been allowed.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted on August 23, 2001 has been considered by the examiner. Initialed copies have been provided.

Drawings

5. New corrected drawings in compliance with 37 C.F.R. 1.121(d) are required in this application because the lines used in the flow charting of the invention, see figures 1, 2 and 8 are too thin for reproduction. Currently these figures include flow chart elements that are difficult to read and include broken lines. Lines need to be thick enough to easily reproduce. The YES or NO need to be located next to the decision block, not in the decision flow lines. These problems become readily apparent when reviewing a copy of the PG-PUB for the instant application.

Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

6. Claim 54 is objected to because of the following informalities:

Claim 54 is presently dependent upon claim 55, which would not be proper since it is not dependent upon a previous claim. The examiner has interpreted this as a typographic error and the correct dependency should be claim 53.

Appropriate correction is required.

Allowable Subject Matter

7. Claims 94, 95 and 96 are allowed.
8. The following is an examiner's statement of reasons for allowance:

In the context of the claim as a whole, the prior art of record does not expressly teach or render obvious the server environment as recited inclusive of the climate and animal models as recited with related conditions for solving and generating a set of animal conditions as recited in independent claims 94, 95 and 96. Specifically, the prior art does not teach the instant models as taught within the specification for the animal nor the microclimate. When determining the meaning of a word or phrase, in this case the phrases "animal model" and "microclimate model", the examiner must go to the specification to properly interpret their meaning. The examiner has interpreted these phrases in light of the specification without reading in limitations from the specification. Therefore, the meaning of these phrases that distinguish over the prior art are found starting at paragraph [0037], [0060], [0061]-[0084] for the microclimate model and paragraph [0038] , [0040], [0041], [0091]-[0096] for the animal model.

The prior art of recode clearly teaches the use of distributed as well as centralized sever topologies for serving climate, microclimates, environmental, vegetation, reptile, fish and mammalian modeling. However none of the prior art uncovered expressly teaches the combination of the models as taught in applicant's specification and positively recited in the allowable claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. The following is a statement of reasons for the indication of allowable subject matter. Claims 1-93, herein are rejected under 35 U.S.C. 101, however, if this rejection is overcome by amendment the following claims would become allowable since the prior art of record does not expressly teach or render obvious the following:

Claim 1, includes the limitations, taken in the context of the claim as a whole, of using a microclimate model, a solar radiation model, and an animal model with their respective characteristics including providing for the amount of discretionary energy and discretionary water. The specific constructs of the models as recited in applicant's specification have not been uncovered in the prior art of record. Dependent claims 2-35 would therefore be allowable as well.

Claim 36, includes the limitations taken in the context of the claim as a whole, of using/running a microclimate model, step of calculating an amount of metabolic heat generation required to maintain a core temperature, using a gut model and lung model, and using an animal model including their respective characteristics in concert with using heat balance analysis with the calculation of the amount of discretionary energy with mass balance analysis using the calculated amount of metabolic heat generation. The specific constructs of the models as recited in applicant's specification have not been uncovered in the prior art of record. Dependent claims 37-69 would therefore be allowable as well.

Claim 70, includes the limitations, taken in the context of the claim as a whole, of using/running microclimate conditions, calculating an amount of metabolic heat generation required to maintain a core temperature, a gut model and lung model, and an animal model with their relative characteristics inclusive of using heat balance analysis with the calculation of the amount of discretionary energy with mass balance analysis using the calculated amount of metabolic heat generation. The specific constructs of the models as recited in applicant's specification have not been uncovered in the prior art of record. Dependent claims 71-93 would therefore be allowable as well.

Claim Rejections - 35 U.S.C. § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 1-93 and 97-100 are rejected under 35 U.S.C. 101 because:

Independent claims 1, 36, and 70 are disembodied and merely algorithmic in their nature where these method claims could be implemented through mental steps and/or constructed on paper with pencil, and are not limited to being performed by a computer or a machine and therefor neither in the technological arts nor tangible. Data sets can be tabular listings and translations, calculating and solving steps can be implemented mentally or with paper and pencil. See *In re Meyer and Weissman*, 215 USPQ193 (CCPA 1982), *In re Walter*, 205 USPQ 397 (CCPA 1980), *Arshal v United States* 208 USPQ 397 (US CICT 1980), *In re Sarkar* 200, USPQ 132 (CCPA 1978), *In re Musgrave*, 431 F. 2nd at 893 167 USPQ 280 (CCPA 1970) and *In re Foster*, 438 F. 2d 1011, 1013, 169 USPQ 99, 101 (CCPA 1971).

When applying the test of whether or not the invention, as claimed is "Tangible" the examiner applies *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994). The examiner has determined that there is simply a mathematical construct claimed, such as a disembodied data structure and method of making it. If so, the claim involves no more than a manipulation of an abstract idea and therefore, is nonstatutory under 35 U.S.C. § 101. In *Warmerdam* the abstract idea of a data structure became capable of producing a useful result when it was fixed *in a tangible medium which enabled its functionality to be realized*.

Also, for such subject matter to be statutory, the claimed process must be limited to a practical application of the abstract idea or mathematical algorithm **in the technological arts**. See *Alappat*, 33 F.3d at 1543, 31 U.S.P.Q. 2d at 1556-57 (quoting *Diamond v. Diehr*, 450 U.S. at 192, 209 U.S.P.Q. at 10). See also *Alappat* 33 F.3d at 1569, 31 U.S.P.Q. 2d at 1578-79 (Newman, J., concurring) ("unpatentability of the principle does not defeat patentability of its practical applications") (citing *O'Reilly v. Morse*, 56 U.S. (15 How.) at 114-19).

A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is *concrete, tangible and useful*. See *AT &T*, 172 F.3d at 1358, 50 USPQS 2d at 1452. Likewise, a machine claim is statutory when the machine, as claimed, produces a concrete, tangible and useful result (as in *State Street*, 149 F.3d at 1373, 47 U.S.P.Q. 2d at 1601) and/or when a specific machine is being claimed (as in *Alappat*, 33 F.3d at 1544, 31 U.S.P.Q. 2d at 1557 (*in banc*)).

For example, **a computer process that simply calculates a mathematical algorithm that models noise is nonstatutory**. However, a claimed process for digitally filtering noise employing the mathematical algorithm is statutory.

This rejection could be overcome by amending the method claims, 1, 36 and 70, to include language like: "A computer implemented method", as long as the computer implementation is supported by the specification.

10. Claims 97-100, are also rejected under 35 U.S.C. 101, since they recite computer programs *per se*, where data structures which are not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are *not capable of causing functional change in the computer*. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory).

Software programs do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. **Until a program is executed on a computer it is not functional.**

However, a claimed computer-readable medium encoded with a data structure defines structural and *functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory*. Computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized.

Moreover, a claimed computer-readable medium encoded (*which applicant has not disclosed*) with a **computer program is a computer element which defines**

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structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. Functional means the program executes on the server or computer.

Conclusion

11. The prior art made of record, on USPTO 892, and not relied upon is considered pertinent to applicant's disclosure.

CONTACT INFORMATION

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William D. Thomson whose telephone number is 571-272-3718. The examiner can normally be reached on 8:30-3:30 Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'W. Thomson', with a long horizontal flourish extending to the right.

William Thomson
Primary Examiner
Technology Center 2100
Art Unit 2123